SUBSTITUTE SPECIFICATION

Schäfer: W1.1674 PCT

Devices for Fixing at Least One Packing to a Cylinder of a Rotary Printing Press and a Printing Group Comprising Such Devices

CROSS-REFERENCE TO RELATED APPLICATIONS

[001.] This application is the U.S. National Phase, under 35 USC 371 of PCT/DE03/01332, filed April 24, 2003; published as WO 03/691024 A1 on November 6, 2003 and claiming priority to DE 102 18 474.7, filed April 25, 2002, the disclosures of which are expressly incorporated herein by reference.

FIELD OF THE INVENTION

[002.] The present invention is directed to devices for fastening at least one dressing or packing on a cylinder of a rotary printing press and to a printing group having these devices.

BACKGROUND OF THE INVENTION

[003.] A device for use in bracing and/or clamping flexible plates, having beveled suspension legs, is described in DE 199 24 785 A1. A first suspension leg is arranged in a cylinder groove in a manner wherein it can be pressed against a groove wall by a pivotably seated profiled strip, which is provided with three arms. Another suspension leg, with a clamping roller, is arranged to

be pressed against another location of the groove wall. The strip can be divided into several shorter profiled strips. Alternatively, a support strip supporting the profiled strip can be divided into several shorter support strips. Adjoining support strips are connected with each other by a coupling, for example by a tooth arrangement at both ends. A free end of the first and of the last support strip located in the cylinder groove are connected, fixed against relative rotation, which itself is fastened, with its parts covering the cylinder groove, to an end coupling piece to the flanks of the cylinder, for example by screwing.

[004.] A device for clamping and releasing of flexible plates with beveled suspension legs is known from DE 199 24 787 A1. Two cooperating strips are provided in a cross-sectional surface extending axially in respect to a groove, which two strips are charged in opposite directions by a spring with a force. Each end of the two springs is supported on an interior wall of a base body arranged in the groove. A support point of the springs is located substantially orthogonally with respect to the bearing point of the springs. Although the springs exert the force on the strips, which force is necessary for clamping, they do not simultaneously fix all of the strips in place in their bearing points during clamping.

SUMMARY OF THE INVENTION

[005.] The object of the present invention is directed to providing devices for fastening at least one dressing on a cylinder of a rotary printing press, and to a printing group having these devices.

[006.] In accordance with the invention, this object is attained by the provision of a cylinder of a

rotary printing press that is provided with an axially extending groove having spaced first and second walls. At least one packing or dressing end holding device, and at least one spring element are situated in the groove with the holding device being usable to hold the packing trailing end. The holding device is embodied as a pivotable lever which is supported in the groove at a bearing point opposite to the groove's opening at the cylinder surface. The spring element is supported on the groove walls and exerts both a clamping force and a fixing or securement force on the holding device.

[007.] The advantages to be gained by the present invention reside, in particular, in that an embodiment of the device of the present invention, which is simple and which can be produced cost-effectively, is possible, which is provided with a holding element, or with a clamping element, for fastening at least one dressing on a cylinder of a rotary printing press.

[008.] In particular, in connection with pressing the holding element or device, or the clamping element, against a wall of the opening of the groove, an effective clamped fastening of at least one leg of a dressing, introduced into the opening of the groove, which dressing rests on the surface of the cylinder, can be provided. The holding element, or the clamping element, is simultaneously dependably fixed in place in the groove.

[009.] Neither a profiled strip provided with three strip-shaped arms, which is configured in a complicated manner, nor a clamping roller, which must be guided between the profiled strip and a support strip used as an abutment and which must be pressed against a suspension leg resting against the groove wall, for the purpose of an indirect clamping, are required, in accordance with the present invention, for fastening the dressing. In the same way, a coupling between adjoining

support strips and consisting, for example, of a tooth arrangement, for arranging the individual support strips in the cylinder groove in a manner fixed against relative rotation, is also omitted. In accordance with the solution proposed by the present invention, the clamping device is supported in the groove of the cylinder itself. If several clamping devices are arranged in the groove of the cylinder, this characteristic applies to each individual clamping device. Thus, the prior art structure of a clamping device, as depicted in DE 199 24 785 A1, and consisting of at least a profiled strip, a support strip and a clamping roller, is made simpler and therefore more cost-effective by the present invention.

[010.] An embodiment of the device in accordance with the present invention, wherein at least the leg of the trailing end of the dressing has been at least partially configured as a rocker, is particularly advantageous. Following the introduction of the leg into the opening of the groove, this rocker is supported with its bearing point on the wall of the opening or on the wall of the groove. In the process, the clamping element braces the dressing with it leg embodied as a rocker.

BRIEF DESCRIPTION OF THE DRAWINGS

[011.] Preferred embodiments of the present invention are represented in the drawings and will be described in greater detail in what follows.

Shown are in:

Fig. 1, a first embodiment of a device, in accordance with the present invention, for fastening a plate-shaped printing forme on a cylinder, and in

Fig. 2, a second preferred embodiment of a device for fastening a printing blanket, which transmits a printed image, on a cylinder.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[012.] In accordance with a first preferred embodiment of the present invention, as represented in Fig. 1, a dressing 03a, for example a plate-shaped printing forme 03a, is fastened on a surface 02 of a cylinder 01a. Beveled leading and trailing legs 04, 05 respectively, situated at the ends of the dressing 03a, are introduced into a groove 06a which is arranged in cylinder 01a, which groove 06a has an opening 07 pointing toward the surface 02 of the cylinder 01a plate end legs 04, 05 are substantially placed against walls 08, 09, of groove 06a, which walls are located near the surface, and adjacent the opening 07 of groove 06a. The legs 04, 05 can also partially rest against an inner wall 10 of the groove 06a, situated in groove 06a away from the area of the opening 07 and located deeper in the interior of the cylinder 01a. A boundary between the walls 08, 09 of the opening 07 and the wall 10 of the groove 06a extends seamlessly. An introduction depth of the legs 04, 05 is not exactly fixed, but instead embraces a large tolerance range. The groove 06a can have various cross-sectional diameters. However, a circular cross section, as represented in both drawing figures, is advantageous from the viewpoint of production technology.

[013.] Without limiting the invention to the simplified representation which follows, the description of the invention will be provided here for simplicity's sake in such a way as if only one dressing, extending completely around the circumference of the cylinder, were to be fastened. It is clear to one skilled in the art that several dressings could, in accordance with the invention

described here, be fastened to the cylinder, in either its axial direction as well as in its circumferential direction. In case of the provision of several dressings, situated after each other in the circumferential cylinder direction, several grooves are also provided.

[014.] Viewed in the production or cylinder rotation direction P, the dressing 03a to be fastened on the cylinder 01a has a leading end 11 and a trailing end 12, each with a beveled leg 04, 05, respectively. Also, viewed in the production direction P of the cylinder 01a, the opening 07 of the groove 06a has a front edge 13, from which the first, leading wall 08 extends toward the groove 06a, as well as a rear edge 14, from which the second, trailing wall 09 also extends in the direction toward the groove 06a. The opening 07 on the surface 02 of the cylinder 01a is embodied to be long and narrow, and is therefore slit-shaped. A slit width S in the cylinder surface 02, in comparison with a depth "t" of the groove 06a, which depth "t" can be 30 mm, for example, is slight and is of such a size, that a leg 04 of a leading end 11 of a dressing 03a and a leg 05 of a trailing end 12 of dressing 03a, or in case of several dressings fastened in the circumferential direction of the cylinder 01a, of an identical dressing 03a, can be arranged one behind the other in the opening 07. Slit widths of less than 5 mm, and preferably in the range of between 1 mm and 3 mm, are advantageous.

[015.] Between the leading wall 08 extending from the slit or groove opening front edge 13 toward the groove 06a, and an imagined tangent line T resting on the surface 02 of the cylinder 01a against the opening 07, an acute angle α has been formed, as seen in Figs. 1 and 2 and which angle α is between 40° and 50°, and is preferably 45°. Thus, the groove opening or slit 07 tapers, or becomes narrower toward the surface 02 of the cylinder 01a, and it widens toward the interior

of the groove 06a. The leg 04 of the leading end 11 of the dressing 03a can be suspended on the front edge 13 of the opening 07, so that this leg 04 rests, preferably with positive contact, against the first leading wall 08 extending from the groove front edge 13 to the groove 06a. In the preferred embodiment of the present invention represented in Fig. 1, the groove opening or slit second, trailing wall 09 drops at the rear edge 14 of the slit or opening 07 approximately vertically or radially inwardly toward the groove 06a. However, the wall 09 can be slightly inclined, so that the opening 07 widens toward the groove 06a. An angle β, which is defined as the opening angle between the trailing wall 09 extending from the slit or opening 07 rear edge 14 toward the groove 06a, and the previously mentioned tangent line T resting on the surface 02 of the cylinder 01a against the opening 07, lies in a range of between 80° and 95°, for example, and is preferably 90°.

[016.] As a rule, the groove 06a extends parallel with respect to an axis of rotation of the cylinder 01a. Approximately diametrically opposite the slit-shaped opening 07, a recess, for example a channel 15, is located in the inner wall 10 of the groove 06a, into which channel 15 a first, inner end of a plate- shaped, dimensionally stable holding device 16 is inserted, preferably loosely, and is pivotably seated. The channel 15 is a bearing point 24 and is a support point 24 of the holding device 16, which may be configured as a lever. In order to pivot the holding device 16 in the channel 15, a width B of the channel 15 is of a larger size than is a thickness D of the holding device 16.

[017.] In addition to the position of the bearing point 24 of the holding device 16 being located exactly diametrically opposite the opening 07 shown in Fig. 1 on the wall 10, and still in the area of the bottom of the groove 06a, this position can also deviate, in a clockwise direction, by up to

approximately 30° from a vertical line starting at the opening 07 in a direction of the groove side facing the front edge 13. An angle of between 15° and 20° can be of particular advantage, as seen in Fig. 2.

[018.] The holding device 16 is embodied in such a way that it has a first, upper end 18, which can be placed against one of the two walls 08 or 09 of the opening 07, and a second, lower end 19, which is located opposite the opening 07. A spring element 17, for example a compression spring 17, that may be embodied as a leaf spring 17, is attached to the holding device 16 and is preferably directly supported on the wall 08 of groove 06a extending directly from the groove front edge 13 of the opening 07, or on the wall 10 of the groove 06a. Spring element 17 is situated in such a way, that the pivotably seated, second, lower edge 19 of the holding device 16 is fixed in place at its bearing point 24, i.e. is fixed in the channel 15. At the same time, the first, upper end 18 of the holding device 16 is pressed against the second, trailing wall 09 extending at the rear edge 14 of the opening 07. A clamping point 25 thus results at the first, upper end 18 of the holding device 16. By their cooperation, the holding device 16 and the spring element 17 constitute a clamping device effective in the groove 06a. Preferably, the spring element 17 is pre-stressed and, in this way, stabilizes the holding device 16 in its position in the groove 06a and secures the holding device 16 against inadvertently falling out of the opening 07. To achieve this simultaneous clamping and fixation in place, it is necessary for the spring element 17 to exert, because of its support in the support point 23, and in particular because of the position and/or shaping of this support point 23, a force of sufficient size for fixing the holding device 16 in place at its bearing point 24, in particular by pushing the holding device 16 against its bearing point 24. Because of

this force requirement, the support point 23 of the spring element 17 is arranged spatially closer to the groove opening 07 than to the bearing point 24 of the holding device 16. Fixation of the spring 17 in place is achieved, in a simple manner, in that the spring element 17 is preferably supported on the wall 08 extending from the front edge 13 of the opening 07, or preferably in direct contact with the wall 10 of the groove 06a, in such a way that forces F1, F2 are simultaneously received in the support point 23 of the spring element 17 in two directions, which forces F1 and F2 extend vertically with respect to each other in the cross-sectional plane of the groove 06a. This absorption of the forces becomes possible because the support point 23 is, in particular, located at a spot where, because of the acute angle α of the opening 07, the first leading wall 08, extending from the front edge 13 toward the groove 06a, forms an inclined surface which is facing the support point 23 of the spring means 17. Respective force components are formed, at this inclined surface, in the support point 23 of the spring element 17 as counterforces to the support force components F1, F2. One such force component, as the counterforce to F2, exerts a force required for clamping the leg 05 introduced into the opening 07. A further such force component acts in the direction of the bearing point 24 of the holding device 16 to press it into the channel 15 in order to stabilize its position, in the course of the rotation of the cylinder 01a. An alternative configuration of the inclined surface can consist with the wall 08 extending from the groove front edge 13 and having a recess or being shaped in such a way that the distribution of forces previously described can take place in the support point 23 of the spring element 17. A helical compression spring 17, which can be correspondingly arranged in the groove 06a, can also be employed as the spring element 17 and in place of the leaf spring 17. Although the support

point 23 of the spring element 17 is preferably located directly on the wall 08, in the case of a dressing trailing end leg 05 configured to be longer, the support point 23 can also be located on the latter, so that the spring element 17 is indirectly supported on the wall 08. In the latter case, the spring element 17 is not in direct contact with the wall 08, although the above described division of forces occurs. The holding device 16 can be allowed to have vertical play in the channel 15, as long as it is assured that the holding device 16 does not slide out off the opening 07 in any operational situation and is fully functional for clamping.

[019.] In actual use, the support point 23 is preferably located on the wall 08 extending from the front edge 13 to the groove 06a and directly following an inner end of the leg 04 of the leading end 11 of dressing 3a, which dressing leading end 11 is suspended in the front edge 13, of the groove 06a. A distance "a" between the inner end of the leg 04 and the support point 23 is preferably less than 5 mm, and in particular is less than 3 mm. Several holding devices 16, with associated spring elements 17, can, of course, be arranged in the longitudinal direction of the groove 06a. Only a single holding device 16 is arranged in each cross- sectional plane of the groove 06a.

[020.] An actuating device 20, which acts counter to the contact pressure exerted by the spring element 17 via the holding element 16 on the wall 09 extending from the rear edge 14 of the opening 07, is provided in order to release the clamping provided by the holding device 16 on the wall 09, when required, by actuating the actuating device 20. The actuating device 20 preferably is a hose 20 extending in the longitudinal direction of the groove 06a, which hose 20 can be charged with a pressure medium, for example with compressed air, and which can be bordered by

an abutment 21. In this case, the abutment 21 of this actuating device 20 is an enclosure supported on the inner wall 10 of the groove 06a and reduces, because of its shape, the volume increase of the hose 20 required for releasing the clamping, and in this way contributes to a shorter reaction time of the actuating device 20. In a different construction of the actuating device 20, an abutment 21, in the form herein described, may be unnecessary.

[021.] Furthermore, the embodiment of the present invention, as represented in Fig. 1, shows a particularly advantageous further embodiment, wherein the leg 05 of the trailing end 12 is configured as a rocker wherein, following the introduction of the leg 05 into the opening 07 of the groove 06a, a bearing point 22 of this rocker is supported on the wall 09 of the opening 07. Depending on the geometry that may be used for shaping the edge 14 of the opening 07 against which a leg 05, configured as a rocker, of the trailing end 12 of the dressing 03a has been placed, it might also be that the bearing point 22 of the rocker is already located on the wall 10 of the groove 06a. Thus, the dressing 03a has a beveled leg 05 on its trailing end 12, which trailing end beveled leg 05 is shaped in such a way that this leg 05 has a further bevel, projecting away from the wall 09, at an acute angle of, for example, 15°, which can be tilted into the bearing point 22 on the wall 09 of the opening 07, and because of which, the effective direction of the clamping of the leg 05 of the trailing end 12 is reversed. This further bevel also generates a tensile stress on the dressing 03a resting on the surface 02 of the cylinder 01a, which tensile stress pulls the trailing end 12 of the dressing 03a in the direction toward the front edge 13 of the opening 07. The position of the bearing point 22 of the rocker can be selected to be such that a first lever arm with result between the bearing point 22 of the rocker and the bevel of the leg 05 at the edge 14 of the

opening 07. This first lever arm is approximately twice as long as the one between the bearing point 22 of the rocker and the clamping point 25 between the leg 05 and the holding device 16. This solution has the advantage that production tolerances in the length of the dressing 03a can be compensated for in a simple manner. Dressings 03a of too great a length have a tendency to become displaced on the surface 02 of the cylinder 01a. Furthermore, with a dressing 03a, which does not rest fully on the surface 02 of the cylinder 01a, a break, for example of its trailing end 12, can occur because of the flexing action exerted on it in the course of the production process of the cylinder 01a. In accordance with the solution proposed here, the holding device 16 does not only clamp the dressing 03a in the previously described manner, the dressing 03a is additionally braced by the trailing end leg 05, configured as a rocker. With an appropriate pre-tensioning of the spring element 17, the rocker of the leg 05 and the spring element 17 form an additional bracing system for the dressing 03a, in the course of their cooperation, and together with the holding device 16, and which automatically compensates for changes in the length of the dressing 03a.

[022.] Fig. 2 shows, as a second preferred embodiment of the present invention, a device for fastening a printing blanket 30, which is usable for transferring a printed image, to a cylinder 01b, for example to a transfer cylinder 01b of an offset printing press. The printing blanket 30 has been applied to a support plate 31, which rests on the surface 02 of the cylinder 01b, which is flexible, but dimensionally stable in its superficial extent, and which support plate 31 has beveled legs 34, 35 on its two oppositely located ends, which beveled legs 34, 35 are to be fastened in, and which can be introduced into a groove 06b that is oriented toward an opening 07 in the surface 02 of the cylinder 01b. The dressing 03b being used here, and consisting of blanket 30 and support plate

31, has, as a rule, a complex layer structure which, however, consists at least of a support plate 31 and a printing blanket 30 applied to it. Analogously to the first embodiment of the present invention represented in Fig. 1, the support plate 31 to be fastened on the cylinder 01b has a leading end 32 and a trailing end 33 in the production direction P of the cylinder 01b. Here, too, the opening 07 of the groove 06b has, viewed in the production direction P of the cylinder 01b, a front edge 13 with a first wall 08 extending into the groove 06b, and a rear edge 14 with a second wall 09 also extending into the groove 06b. Between the wall 08 extending from the front edge 13 to the groove 06b, and an imagined tangent line T resting on the opening 07 in the surface 02 of the cylinder 01b an acute angle α has also been formed, which acute angle α lies between 40° and 50°, and preferably lies at 45°. The leg 34 of the leading end 32 of the support plate 31 rests, positively connected, against the first wall 08 extending from the front edge 13. In contrast to the first embodiment represented in Fig. 1, in the second embodiment, the leg 35 of the trailing end 33 of the support plate 31 preferably also rests against the first wall 08, and in this case preferably rests, with the greater part of its surface and preferably being frictionally connected, directly on the leg 34 of the leading end 32 of the support plate 31. The leg 35 of the trailing end 33 of the support plate 31 therefore is beveled at an obtuse angle, which lies within the range of 130° and 140°, and preferably which is about 135°. The wall 09 extending from the rear edge 14 toward the groove 06b, together with the previously mentioned tangent line T resting on the opening 07 in the surface 02 of the cylinder 01b, forms an angle β, the same as has been discussed in the previously described example, angle β which lies within the range between 80° and 95° and preferably is almost a right angle.

[023.] A clamping element 36 which, in this example is provided with a projecting arm and which is dimensionally stable per se, has a first, upper end 38 and a second, lower end 39, wherein the second, lower end 39 is pivotably seated in a bearing point 40, preferably close to the bottom of the groove 06b, wherein the bearing point 40 is embodied as a recess in a base body 41, for example, and the recess has a supporting surface 44, for example, for the lower end 39 of the clamping element 36. The bearing point 40 of the clamping element 36 can, as was previously explained in connection with the first embodiment of the invention, deviate, in a clockwise direction, by up to 30° from a vertical line starting at the opening 07 on the side facing the front edge 13. An angle of deviation of between 15° and 20° can be advantageous in particular. The base body 41 is preferably secured against twisting in the groove 06b. The base body 41 can be made of a plastic material or of a metallic material. If several clamping elements 36 are provided in the longitudinal direction of the groove 06b, each of the clamping elements 36 can be arranged in a separate base body 41, and the base bodies 41 can be lined up against each other in the groove 06b.

[024.] By the use of a spring element 37, for example of a helical compression spring 37 or of a leaf spring 37, which is preferably encased in the base body 41 and which is supported therein at a support point 43 and which forms a clamping device, together with the clamping element 36, a contact pressure is exerted. The first, upper end 38 of the clamping element 36 exerts this clamping pressure on the legs 34 and 35, which are resting on top of each other and against the wall 08 of the front edge 13, because of which clamping pressure, both legs 34 and 35 are clamped to the first wall 08. The first, upper end 38 of the clamping element 36 is supported at a

clamping point 45 between the clamping element 36 and the leg 35, at the trailing end 33 of the support plate 31 of the dressing 03b, on the wall 08 extending from the front edge 13 of the opening 07, or on the wall 10 of the groove 06b, in such a way that forces F1, F2 at the clamping point 45 are simultaneously absorbed in two directions, which forces F1, F2 extend vertically on top of each other in the cross-sectional plane of the groove 06b. Because of the acute angle α, the clamping point 45 again lies on an inclined surface. With this preferred embodiment, the clamping point 45 therefore lies in the area of the wall 08 which is covered by the two legs 34 and 35 which two legs 34 and 35 lie on top of each other. The clamping device with the pivotably seated clamping element 36, and in particular with the bearing point 40 of the clamping element 36, remains fixed in place in the groove 06b because of its support and because the force distribution provided along with it.

[025.] The spring element 37 is preferably pre-stressed and, in particular in cooperation with the security against twisting provided by the base body 41, it causes, by the action of its force on the clamping element 36, the seating, fixed in place, of the clamping element 36 by the effect of a force component of sufficient size. In the second preferred embodiment, which is represented in Fig. 2, the groove 06b has a circular cross section. The base body 41 is preferably matched, in its outer shape, to the contours of the groove 06b, or is supported by at least three support points on the wall 10 of the groove 06b. For example, an arresting element 42, which may be formed as a stop for the base body 41, projects into the opening 07 and is supported on the second wall 09 of the opening 07. In this way, the base body 41 is secure against twisting, in particular in a circular groove 06b. Such a twist prevention of the relatively inexpensive base body 41 is, in particular, of

advantage if, for example, no channel 15 is provided for the holding device 16 or for the clamping element 36 in the groove 06a, 06b, the cutting of such a channel 15 having been omitted for reasons of cost. With an appropriate cross-sectional geometry of the groove 06b, for example an angular geometry, the base body 41 can be configured in such a way that it is supported, secure against twisting, on the wall 10 of the groove 06b.

[026.] An actuating device 20 has been provided in the base body 41, which actuating device 20 counteracts the contact pressure exerted by the spring element 37, via the clamping element 36, on the first wall 09 of the opening 07 in order to release, when desired, the clamping caused by the clamping element 36 on the first wall 09 when the actuating device 20 is operated. The actuating device 20 is again preferably a hose 20 that is provided extending in the longitudinal direction of the groove 06b, which hose 20 can be charged with a pressure medium, for example with compressed air, and which hose 20 can be encased by the base body 41.

[027.] With this second preferred embodiment, it is also assumed that only a single clamping element 36 is arranged in each cross-sectional plane of the groove 06b. Several such clamping elements 36, with associated compression springs 37, can easily be arranged in the longitudinal direction of the groove 06b. It is common to both of the depicted and described embodiments that a holding device 16, or a clamping element 36, is pivotably, and is preferably loosely, seated in the groove 06a, 06b by one end, i.e. by only one end 19, 39, and wherein clamping of the leg 05, 35 of the trailing end 12, 13 of the dressing 03a, or of the support plate 31, as well as a fixation in place of the holding device 16, or of the clamping element 36, in their bearing points 24, 40 is achieved by the use of a spring element 17, 37, which spring element is in operative connection

with the holding device 16, or with the clamping element 36. Fixation in place of the clamping device, which is formed by the holding device 16, or by the clamping element 36, and the spring element 17, 37 takes place in such a way that, with the inclusion of the clamping point 25, 45 existing between the holding device 16, or the clamping element 36, and the leg 05, 35 of the trailing end 12, 33 of the printing forme 03a, or of the support plate 31, because of its pre-stress, the spring element 17, 38 stabilizes the holding device 16, or the clamping element 36, secure against twisting, if necessary with the aid of an arresting element 42 formed on the base body 41. Although the bearing point of the holding device 16, or of the clamping element 36, does allow the holding device 16, or the clamping element 36, to pivot, it is fixed in place, at least during the clamping process, with respect to its position in, or in relation to, the groove 06a, 06b. In this embodiment, the spring element 17, 37, or the holding device 16 or the clamping element 36, is supported indirectly or directly at a support point 23, 45 on that wall 08, 09 which, in the opening 07, is located opposite that wall 08, 09 on which the stop 42 is supported.

[028.] Thus, each of the above-described embodiments of the present invention is directed to a device for fastening at least one dressing 03a, or a support plate 31, on a cylinder 01a, 01b, having a clamping device, fixed in place secure against twisting on a wall 10 of the groove 06a, 06b, or on the walls 08, 09 of the opening 07, with a holding device 16, or with a clamping element 36 pivotably seated in, or at the bottom of the groove 06a, 06b, and wherein the clamping device is arranged in a base body 41, if desired. A spring element 17, 37 or a clamping element 36, at the same time, absorb, in their support point 23, or in their clamping point 45, forces F1, F2, extending in two directions vertically on top of each other in the cross-sectional plane of the

groove 06a, 06b, and at the same time perform the two functions of clamping and of fixation in place by use of the resulting counter-forces.

[029.] The above-described preferred embodiments of the device for fastening at least one dressing on a cylinder, in accordance with the present invention, can be realized in the same printing group of a rotary printing press. A cylinder 01a, with a printing forme 03a in accordance with the first preferred embodiment can roll off on a cylinder 01b with a dressing 03b in accordance with the second preferred embodiment. Thus, a plate- shaped printing forme 03 fastened on the surface 02 of the first cylinder 01a rolls off on a printing blanket 30, which has been applied to the surface 02 of the second cylinder 01b by the use of a support plate 31. In this case, the cylinder 01a, in accordance with the first preferred embodiment, constitutes a forme cylinder, and the cylinder 01b, in accordance with the second preferred embodiment, constitutes a transfer cylinder. Furthermore, the clamping device consisting of a holding device 16 and a leaf spring 17 and arranged in the groove 06a of the forme cylinder 01a, can be encased in a base body 41, wherein recesses in the base body 41 make possible the previously described pivotability and support of the clamping device.

[030.] In that case, this printing group is also distinguished, for example, by an approximately right angle β being formed between the wall 09 extending from the rear edge 14 to the groove 06a of the forme cylinder 06a and the tangent line T resting on the opening 07 in the surface 02 of the forme cylinder 01a. The trailing end 12 of the printing forme 03a is maintained on the wall 09 extending from the rear edge 14 to the groove 06a, and the leg 35 on the trailing end 33 of the support plate 31 forms an obtuse angle with the tangent line T resting on the opening 07 of the

transfer cylinder 01b and is maintained, together with the leg 34, at the leading end 32 of the support plate 31, on the wall 08 extending from the front edge 13 to the groove 06b.

[031.] While preferred embodiments of devices for fixing at least one packing to a cylinder of a rotary printing press and a printing group comprising such devices, in accordance with the present invention, have been set forth fully and completely hereinabove, it will be apparent to one of skill in the art that changes, for example in the overall sizes of the cylinders, in the specific structures of the packings or dressings and the like could be made without departing from the true spirit and scope of the present invention which is accordingly to be limited only by the appended claims.

[032.] WHAT IS CLAIMED IS: